The Impact of Nurses' Work Environments on Daily Work Dissatisfaction

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Dissertation Committee

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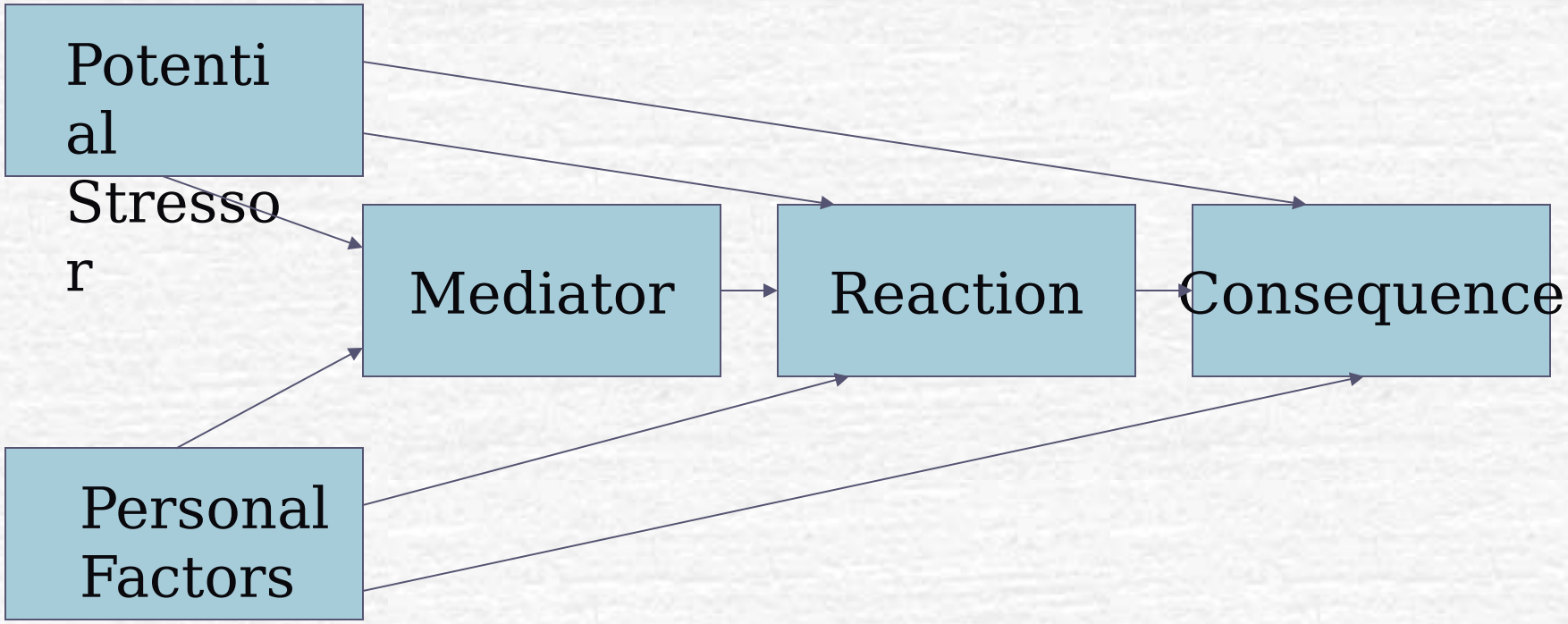
Purpose

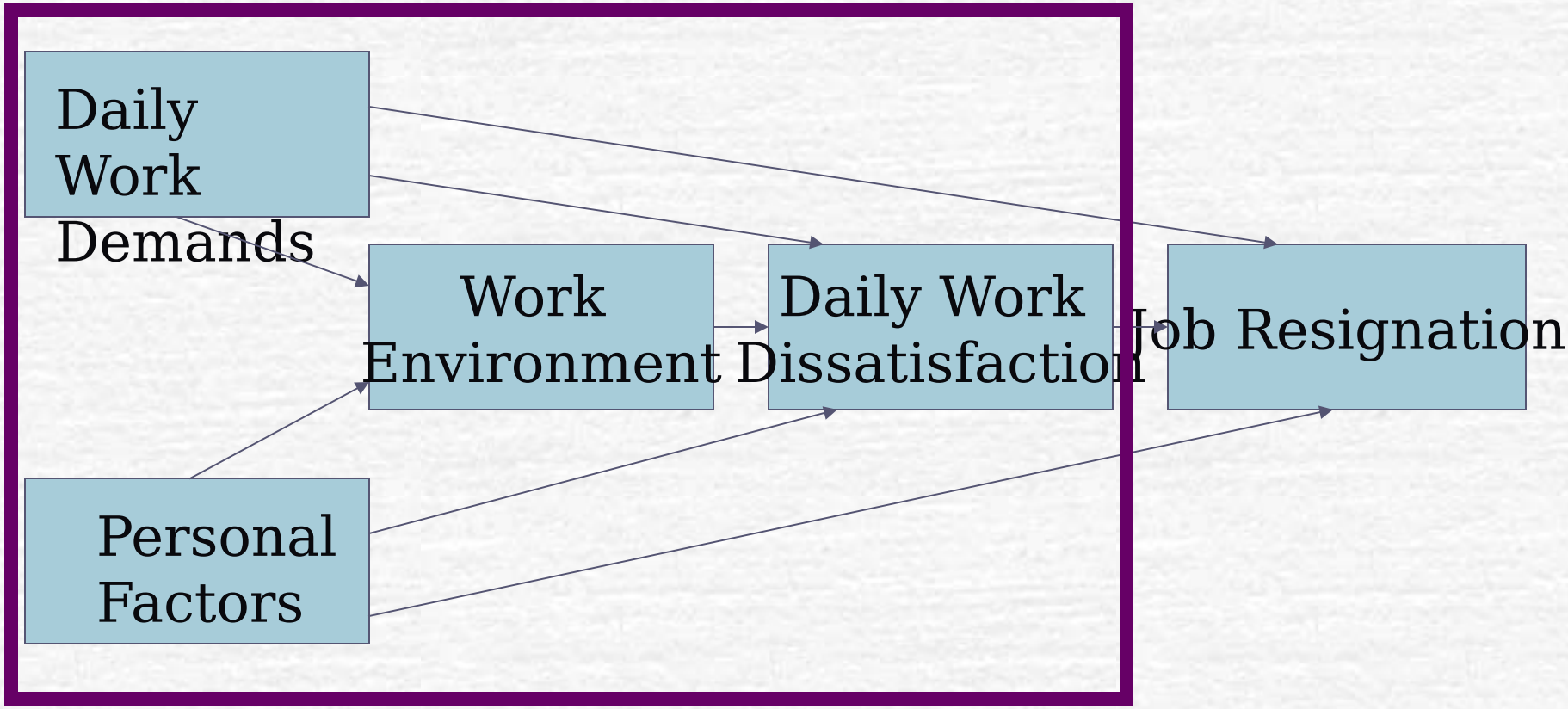
- To determine the personal factors, daily work demands and work environment attributes that predict nurses' daily dissatisfaction levels
- To explore interaction effects between predictors of job dissatisfaction and work environment attributes

Theoretical Framework



Elliott & Eisdorfer, 1982; Salyer, 1995; Garrett & McDaniel, 2001

Theoretical Framework



Daily Work Demands

- RN-to-patient ratio
- RN skill mix
- Contract staff
- Total staff
- Patient census
- Hours worked
- Shift assignment
- Nurse-assessed workload
- Nurse-assessed understaffing

Personal Characteristics

- Age
- Experience
  - In nursing
  - In hospital
  - On unit
- Dependent children at home

Work Environment

- The professional quality of the work environment
  - How well nurses and physicians interact
  - The adequacy of resources to get the job done (people, time, materiel)
  - The degree of support from administration (nurse managers and supervisors)
  - Other: active participation in the hospital activities, advancement opportunities, high standards for patient care, recognition for good work

Daily Work Dissatisfaction

- How dissatisfied/unhappy nurses were at the end of their shift

Design

- Descriptive, correlational design
- Cross-sectional and longitudinal data
- Secondary data analysis
  - Data from multi-site, multipurpose study on outcomes of hospitalized AIDS patients (1991)
  - Aiken & Sloane (1997a; 1997b)
  - Aiken, Sloane, Lake, Sochalski, & Weber (1999)

Original Sample

- 920 RNs & LPNs who worked at least 16 hours per week on that unit
- 40 units, either AIDS units or general med-surg units
- 20 urban hospitals across the nation

Data Source: Cross-sectional Survey

- Demographics
  - Age (years)
  - Experience (years): nursing, hospital, and unit
  - Education (years)
  - Dependent children in household (yes = 1)
- Revised Nursing Work Index (1-4 Likert scale)
  - Nurse-physician collaboration (3 items)
  - Resource adequacy (4 items)
  - Administrative support (5 items)
  - Composite index (33 items including all above)

Data Sources: Longitudinal

- Coupons (mini-surveys) – collected for 28 days
  - Daily work demands
    - Nurse-assessed workload (light = 1 to heavy = 5)
    - Nurse assessed understaffing (understaffed = 1)
    - Hours worked
    - Presence of contract staff (present = 1)
    - Shift assignment (day, evening, night)
  - Daily work satisfaction (Faces scale, 1 = very dissatisfied to 4 = very satisfied)
- Charge Nurse Reports
  - Patient census
  - Staffing types and numbers
  - Calculated RN-to-patient ratios and RN skill mix

Analytic Issues

- Matching longitudinal data to cross-sectional
- Missing data - multiple imputation
- Four category dependent variable – cumulative (ordered) logit analysis
- Non-independent or clustered data - Generalized estimating equations

Results – Sample (N=697)

Variable	Mean (years)	SD
Age	32.3	9.41
Education	16	2.1
Nursing experience	9.3	8.5
Hospital experience	5	5.8
Unit tenure	3.6	4

Results – Sample (N=697)

Variable	f	%
RN	600	87%
BSN	340	56.6 %
No dependent children at home	441	65%

Cumulative Logit Results

(ORs and 95% CIs) (N=9582 observations – multiply imputed)

Variables	Model 1
Personal factors	
Nursing experience	0.99 (0.98, 0.99)***
Unit tenure	1.04 (1.02, 1.05)***
Daily work demands	
RN:pt ratio	0.18 (0.10, 0.32)***
Contract staff	1.28 (1.14, 1.43)***
Total staff	0.96 (0.94, 0.99)**
Nurse-assessed workload	3.50 (3.22, 3.79)***
Nurse-assessed understaffing	2.60 (2.12, 3.20)***

*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

Cumulative Logit Results
(ORs and 95% CIs) (N=9582 observations – multiply imputed)

Note: the models below include all variables from Model 1 (personal factors and daily work demands)_

Variables

Work environment scales (each modeled separately)

Model 2:	Ns-Md collaboration	0.73 (0.67, 0.79)***
Model 3:	Resource adequacy	0.76 (0.71, 0.82)***
Model 4:	Administrative support	0.79 (0.74, 0.84)***
Model 5:	Composite Index	0.71 (0.65, 0.77)***

*p ≤ .05, **p ≤ .01, ***p ≤ .001

Cumulative Logit Results - Interactions
(ORs and 95% CIs) (N=9582 observations – multiply imputed)

Note: the models below include all variables from Model 1 (personal factors and daily work demands)_

Variables

Work environment scales (each modeled separately)

Model 6: Ns-Md collaboration X Workload	.89 (.80, .95)***
Model 7: Resource adequacy X Workload	.89 (.82, .95)***
Model 8: Administrative support X Workload	.94 (.86, 1.04)
Model 9: Composite Index X Workload	.90 (.81, .99)*

*p ≤ .05, **p ≤ .01, ***p ≤ .001

Conclusions

- Of the **personal factors**, nursing experience and unit tenure were related to work dissatisfaction such that more experience slightly decreased the odds of dissatisfaction, and more years on the unit was associated with higher odds of reporting dissatisfaction

Conclusions

- The following **daily work demands** increased the odds of reporting work dissatisfaction: presence of contract staff, higher nurse-assessed workload, nurse assessed understaffing, lower RN:patient ratios, and lower numbers of staff.

Conclusions

- Nurse assessed workload and understaffing had substantial effects on daily work dissatisfaction.
- Better work environments were associated with less work dissatisfaction.
- Most importantly, work environments where nurse-physician collaboration, resource adequacy, and the overall environment were more favorable buffered the effects on the work environment.